

ADDENDUM NO. 1

**CITY OF HIALEAH
72 UNIT ELDERLY HOUSING
275 PALM AVE.
HIALEAH, FLORIDA**

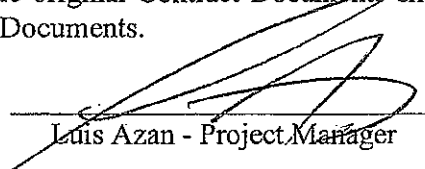
FEBRUARY 20, 2013

TO ALL CONCERNED

The original Contract Documents, for the Project entitled **CITY OF HIALEAH – 72 Unit Elderly Housing, PORCELAIN, CERAMIC AND VINYL TILE BID NO. 2012/13-3230-00-024** is hereby amended as noted in this **Addendum No. 1**.

This **Addendum No. 1** consists of **18** Typed Pages, **0** Sketches, **0** Attachments and **0** Drawings. All other items and conditions of the original Contract Documents shall remain unchanged. This Addendum shall become a part of the Contract Documents.

Approved for issue:


Luis Azan - Project Manager

Date: February 20, 2013

ACKNOWLEDGEMENT

Receipt of this **Addendum No. 1** shall be acknowledged in the space provided on the **ADDENDUM RECEIPT FORM (ARF)** (copy attached) now a part of the Contract Documents faxed immediately to City of Hialeah @ (305) 687-2642, and submitted with sealed bids.

IN THE CONTRACT DOCUMENTS:

Response to RFI from *Hialeah Italian Tile* dated February 14, 2013:

1. I cannot find the finish schedule for tile & vinyl for the 72 unit building.
Commercial Grade Resilient Flooring (VCT) – Armstrong or equal. Installed as flooring inside all apartment units and Multipurpose Room. Owner's choice of color. Do not include Rubber Base (base is By Others). Follow Guidelines in Attachment 1, Architects Specifications Section 09650 and LEED requirements Section 01352
Ceramic Tile – (White) Installed at all bathroom locations and walls where required. Follow Guidelines in Attachment 1, Architects Specifications Section 09300 and LEED requirements Section 01352
2. I need bathroom elevations, which areas take which flooring, and what kind of bathroom tile you want us to price.
Bathroom elevations are located on Architectural Pages A-300 & A-301.
Ceramic Wall Tile – 4-1/4" x 4-1/4" x 5/16" (all walls shown in elevations)
Ceramic Floor Tile – 2" x 2" x 1/4" (all floors in bath areas)
Slip Resistant Ceramic Mosaic Tile – 1" x 1" x 1/4" w/ 7-1/2% abrasive content (all shower floor areas)

PORCELAIN, CERAMIC AND VINYL TILE-BID #2012/13-3230-00-024

**PAGE 1 OF 1
END OF ADDENDUM NO. 1**

ADDENDUM RECEIPT FORM

**CITY OF HIALEAH
72 UNIT ELDERLY HOUSING
275 PALM AVE
HIALEAH, FLORIDA**

CONTRACTOR'S NAME _____

ADDRESS _____

PHONE NO. _____ **FAX NO.** _____

CONTACT NAME _____ **SIGNATURE** _____

THE BIDDER ACKNOWLEDGES RECEIPT OF THE FOLLOWING ADDENDUM BY SIGNING AND DATING BELOW: COPY OF THIS FORM MUST BE FAXED AND IMMEDIATELY TO CITY of HIALEAH @ (305) 687-2642.

ADDENDUM

SIGNATURE

DATE

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PORCELAIN, CERAMIC AND VINYL TILE-BID #2012/13-3230-00-024

ARF

SECTION 09300**TILE****PART 1 GENERAL****1.01 SECTION INCLUDES**

- A. Ceramic and porcelain tile.
- B. Setting materials.
- C. Grout.
- D. Tile joint sealer.

1.02 RELATED SECTIONS

- A. Cast-In-Place Concrete - Section 03300.
- B. Joint Sealants - Section 07900.
- C. Stucco - Section 09220.
- D. Gypsum Board - Section 09250.
- E. Toilet and Bath Accessories - Section 10800.
- F. Elevators - Section 14240.
- G. Plumbing - Division 15.

1.03 SUBMITTALS

- A. Submit properly identified product data including material specifications, printed installation and mixing instructions and maintenance recommendations for each type ceramic tile and accessory specified.
- B. Certificates:
 - 1. Submit manufacturer's Master Grade Certificate signed by both tile manufacturer and tile installer.
 - 2. Submit adhesive manufacturer's certification of compliance to required standard.
- C. Samples: Submit samples of the following for review and selection by Architect.
 - 1. Panels, 12 inches square, of each type, color and pattern of tile required.
 - 2. Tile manufacturer's full color and pattern range for each type tile required.
 - 3. Grout manufacturer's full color range samples.
 - 4. Each type of trim shape and special shape required, if requested.

1.04 COORDINATION

- A. Coordinate installation of tile over membrane waterproofing, at openings for recessed toilet accessories, around plumbing fixtures or over substrates that if improper, will prevent a sufficient mechanical bond.

1.05 QUALITY ASSURANCE

- A. All ceramic tile shall be Standard Grade and comply with requirements of TCA 137.1 with modifications as specified herein.

PART 2 PRODUCTS**2.01 ACCEPTABLE MANUFACTURERS**

- A. Products specified are by American Olean Tile Co. (Dal-Tile International), (214) 398-1411. Approved equal products by the following listed manufacturers may be submitted to the Architect for review:
 - 1. Crossville Ceramics Co., (931) 484-2110.
 - 2. Florida Tile Industries, Inc., (800) 352-8453.

2.02 PORCELAIN FLOOR TILE

- A. Provide porcelain floor tile (Medium Price Group) by American Olean or approved equal; sizes and colors as selected by Architect.

2.03 CERAMIC WALL TILE

- A. Provide ceramic wall tile "Price Group 2" by American Olean or approved equal, 4-1/4 inches x 4-1/4 inches x 5/16 inch thick; plain face, cushion edges, colors as selected by Architect.

2.04 CERAMIC FLOOR TILE

- A. Provide 2 inch x 2 inch x 1/4 inch thick; similar to "Price Group 3" by American Olean, cushion edges; colors as selected by Architect.

2.05 SLIP-RESISTANT CERAMIC MOSAIC TILE

- A. Provide unglazed ceramic mosaic similar to "Price Group 3" by American Olean 1 inch x 1 inch x 1/4 inch thick; plain face, cushion edges with 7-1/2% abrasive content by weight; colors as selected by Architect.

2.06 TRIM AND SPECIAL SHAPES

- A. Provide the following trim units and special shapes of same material and finish as ceramic wall tile.
 - 1. Base: Sanitary cove base units; width and height to match wall tile.
 - 2. Trim And Top Of Wainscot: Surface-mounted bullnose unit; width and height to match wall tile.
 - 3. External Corners: Bullnose shapes with round out base and top trim special shapes.
 - 4. Internal Corners: Field-buttet square with square in corner base and top trim special shapes.

2.07 MARBLE THRESHOLDS

- A. White marble with 1/4 inch beveled edges and hone finish; 2-1/2 inches wide by 1/2 inch thick.

2.08 SETTING MATERIALS

- A. Portland Cement Mortar: In accord with ANSI A108.1.
- B. Dry-Set Portland Cement Mortar: Pre-sanded product in accord with ANSI A118.1 and by manufacturer licensed by the Tile Council of America.
- C. Organic Adhesive: Type 1, in accord with ANSI A136.1.
- D. Epoxy Mortar: Two-part mortar, employing epoxy resin, aggregates and hardener; acid and alkali resistant; complying with ANSI A118.3; and the Tile Council of America.

2.09 GROUT

- A. Commercial Cement Grout: A mixture of factory-blended Portland cement and additives; colors as selected by Architect; "Hydroment" by Upco Co.; "L & M Acid R Grout" by L & M Surco Co.
- B. Dry-Set Grout: A mixture of Portland cement and additives providing water retentivity; colors as selected by Architect; licensed by the Tile Council of America.
- C. Epoxy Grout: A mixture of epoxy resin and hardener portions, containing coarse silica filler; chemical resistant; complying with ANSI A108.6 and A118.3; and the Tile Council of America.

2.10 TILE JOINT SEALER

- A. Provide "Tile-Mate Super Seal" by The Upco Co.; "Silcrest" by Camkote; "Sealtite" for floors, "Hil-Tex II", for walls by Hillyard, or approved equal.

PART 3 EXECUTION**3.01 GENERAL TILE SETTING REQUIREMENTS**

- A. Sweep floor slab immediately prior to starting any tile work.
- B. Secure tile firmly in place with joints well filled and lines straight and true. Bring finished surfaces to true and level planes. Completed work shall be completely free of cracked or broken tiles.
- C. Where borders, lines, patterns, panels or other effects are a part of the work, properly space tiles and accurately reproduce required designs.
- D. Form intersections and returns perfectly. Perform cutting and drilling of tile neatly without marring tile face. Carefully grind and joint cut edges of tile against any trim, finish and built-in fixtures. Fit tile close around electric outlets, plumbing pipes, fixtures and fittings so that usual plates, collars or covering will overlap tile. Cut edges of tile that will be exposed shall have sharp edges removed.

- E. Layout tile work on floors and walls so that, wherever possible, no tiles less than half full size will occur unless indicated. For heights stated in feet and inches, unless tile work is intended to exactly fill vertical spaces, maintain courses full to produce nearest attainable height within variation, above or below, equivalent to less than one-half course.
- F. Match joints of floor tile with joint lines of base and wall tile.
- G. Control Joints: Provide open joints to receive sealant at internal corners of walls, at changes in material, at room perimeter where floor abuts walls or bases, at curbs, columns, pipes, plumbing fixtures and directly over joints in structural slab. Joints shall extend through setting bed.
- H. Cutting of straight cove base units to form internal corners is prohibited.
- I. Where tile abuts restraining surfaces, cut tile to match contour of that surface.
- J. In rooms and spaces where floor drains are provided, slope floor tile from high points at walls around perimeter of rooms down to floor drains.

3.02 SETTING CERAMIC MOSAIC FLOOR TILE WITH PORTLAND CEMENT MORTAR

- A. Except as otherwise specified, set grout and finally clean ceramic mosaic floor tile in accord with applicable requirements of ANSI A108.1. Execute grouting with type of grout material specified herein.

3.03 SETTING CERAMIC WALL TILE WITH DRY-SET MORTAR (Cementitious Substrate and Tile Backer Board)

- A. Except as otherwise specified, set, grout and finally clean ceramic wall tile in strict accord with applicable requirements of ANSI A108.5. Execute grouting with type of grout material specified herein.

3.04 SETTING CERAMIC WALL TILE WITH ORGANIC ADHESIVE (Gypsum Board Substrate)

- A. Except as otherwise specified, set, grout and finally clean ceramic wall tile in strict accord with applicable requirements of ANSI A108.4. Execute grouting with type of grout material specified herein.

3.05 SETTING CERAMIC MOSAIC FLOOR TILE WITH EPOXY MORTAR

- A. Except as otherwise specified, set, grout and finally clean ceramic mosaic floor tile in strict accord with applicable requirements of ANSI A108.6.

3.06 GROUTING

- A. Use commercial cement grout for grouting unglazed ceramic mosaic floor tile.
- B. Use dry-set grout for grouting glazed ceramic wall tile.
- C. Force grout into joints to fill solid. Remove and re-grout discolored joints. Fill all skips and gaps in joint grout.

3.07 THRESHOLDS

- A. Set marble thresholds directly on concrete floors with same material used for setting ceramic mosaic floor tile, with thresholds abutting tile.
- B. Provide thresholds at each doorway of tiled rooms with outside of threshold lining up with outside face of door.

3.08 TOLERANCES

- A. Finished installation shall be trued to a tolerance of plus or minus 1/4 inch within any undivided space and plus or minus 1/16 inch within any running foot.

3.09 CLEANING

- A. Upon completion of setting and grouting, clean tile as recommended by tile manufacturer. Protect metal surfaces, cast iron and vitreous plumbing fixtures from effects of acid cleaning. After cleaning, flush with clean water. Leave finished installation clean and free of cracked, chipped, broken, un-bonded, or otherwise defective tile.

END OF SECTION

SECTION 09650
RESILIENT FLOORING

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Resilient tile and base.

1.02 RELATED SECTIONS

- A. Cast-In-Place Concrete - Section 03300.
B. Cabinetwork - Section 06410.
C. Gypsum Board - Section 09250.
D. Carpet - Section 09685.

1.03 SUBMITTALS

- A. Submit properly identified product data, including specifications and published installation directions.
B. Submit samples of each type of tile, base and accessory in manufacturer's full color range for selection and acceptance by Architect.
C. Submit maintenance manuals describing care of installed materials to the Owner, prior to final acceptance of the project.

1.04 ENVIRONMENTAL CONDITIONS

- A. Maintain temperatures in areas to receive resilient flooring and base to a minimum of 70 degrees F. for 24 hours before, during, and 48 hours minimum after installation. 1. Thereafter, maintain a minimum temperature of 55 degrees F.

1.05 EXTRA STOCK

- A. Upon completion, deliver additional tile and base to Owner for use in repairs and maintenance. Additional materials of each color and pattern shall be from same lot as materials installed. Furnish tile and base in original boxes, properly marked, in quantities listed below, with colors in approximately the same proportions as installed materials.
1. Resilient Tile: 1/2 of 1% of area used.
2. Rubber Wall Base: 1/2 of 1% of lineal footage used.

PART 2 PRODUCTS**2.01 RESILIENT TILE**

- A. Manufacturers and Types: Provide products by Armstrong "Standard Excelon Imperial Texture MultiColor". Approved equal products by the following listed manufacturers may be submitted to the Architect for review: Manington Essentials, or approved equal.
- B. Provide 12 inch x 12 inch x 1/8 inch thick in accord with Fed. Spec. SS-T-312B, Type IV, with colors and patterns extending through depth of tile.
1. Critical Radiant Flux: 0.45 Watts/cm. sq., or more.
- C. Colors or patterns. Each color to be from one dye lot. As selected by Architect.

2.02 RUBBER BASE

- A. Provide rubber base by Johnsonite. Rubber Wall Base is manufactured from a proprietary thermoplastic rubber formulation designed specifically to meet the performance and dimensional requirements of ASTM F-1861, Type TP, Group 1 (solid) Standard Specification for Resilient Wall Base.
- B. Physical Characteristics:
- 125" (3.17 m) thickness.
 - 2-1/2" (6.35 cm), 4" (10.16 cm), and 6" (15.24 cm) heights.
 - Coved (Toe) Profiles.
 - 4' (1.22 m) straight and 120' (36.58 m) coiled lengths.
 - Inside and Outside Corners with 4" (10.16 cm) returns.
 - Basis of Design/Color: as indicated in Finish Material Legend on sheet A 19.1.
- C. Product Performance And Technical Data:
- Hardness – ASTM D 2240: Rubber – 85 Shore A
 - Flexibility – Will not crack, break, or show any signs of fatigue when bent around a 1/4" (6.4 mm) diameter cylinder.
- Meets or exceeds the performance requirements for resistance to heat/light aging, chemicals, and dimensional stability when tested to the methods, as described, in ASTM F-1861.
- Fire Resistance:
- ASTM E 84/NFPA 255 (Steiner Tunnel Test) – Class C
 - ASTM E 648/NFPA 253 (Critical Radiant Flux) – Class 1.
 - ASTM E 662/NFPA 258 (Smoke Density) – 450 or less.
- D. Cove Base Schedule:
1. RC Manufacturer: Johnsonite
Color: To be selected

2.03 EDGE STRIPS / TRANSITIONS

- A. Vinyl of thickness equal to tile, tapered on edge, or 2-1/2" wheeled transition, of colors selected by Architect. Manufacturer: Johnsonite.

2.04 PRIMER

- A. Per tile manufacturer's published recommendation to suit surface conditions.

2.05 FLOOR TILE ADHESIVE

- A. Asphaltic base material, cutback type, Fed. Spec. MMM- A-110B, as recommended by tile manufacturer.

2.06 BASE ADHESIVE

- A. Waterproof, plastic adhesive type as recommended by base manufacturer.

2.07 VINYL EDGING ADHESIVE

- A. Epoxy type as recommended by edging manufacturer.

2.08 CRACK FILLER AND UNDERLAYMENT

- A. Latex cement as recommended by tile manufacturer.

2.09 CLEANING AND WAXING COMPOUNDS

- A. Cleaner and water emulsion type wax as recommended by flooring manufacturer.

PART 3 EXECUTION**3.01 PREPARATION**

- A. Clean sub-floors to provide suitable substrate.
- B. Grind smooth uneven surfaces.
- C. Fill minor surface imperfections such as cracks, rough areas or depressions with underlayment. Fill minor imperfections in walls to receive base as recommended by base manufacturer.
- D. Ridge, slumps or depressed areas in finished floors shall be cause for rejection of VCT work.
- E. Provide ventilation in areas where adhesive is being installed. When natural ventilation is inadequate, use safety-spark-proof fans; prohibit smoking.
- F. Install flooring after finishing operations are completed including painting.

3.02 MOISTURE TEST FOR CONCRETE SUBFLOORS

- A. Spread small patches of primer at several locations in each room and allow to dry or set overnight. If "set" primer can be peeled easily from floor surfaces, floor is not sufficiently dry. Test shall be repeated until primer adheres properly.

3.03 APPLICATION OF TILE

- A. Establish center lines for tile patterns both ways with respect to principle walls in areas or rooms.
- B. Apply adhesive in accord with manufacturer's published directions. Cover area evenly and only to the extent which can be covered with resilient materials within the recommended time. Remove adhesive which dries or films over. Butt tightly to vertical surfaces, thresholds, nosings and edgings. Scribe as necessary around obstructions.
- C. Layout And Pattern: Lay tile with grain running in one direction. Apply flooring by starting in center of room or area, working from center towards edges. Keep tile lines and joints square, symmetrical, tight and even; each floor to be in a true, level plane, except where indicated as sloped. Where field pattern is not a whole number of units, lay out the pattern so size of edge units are a minimum of one-half field tile size, except corner pieces.
- D. Match tiles for color and pattern by using tile from cartons on the same sequence as manufactured and packaged.
- E. Immediately remove stains, spots and smears of adhesive.

3.04 APPLICATION OF BASE

- A. Allow rolled or warped bases to lie flat at least 24 hours at 70 degrees F. or above, before application. Do not stretch vinyl base.
- B. Apply adhesive to base in accord with manufacturer's recommendations. Leave approximately 1/4 inch bare space along top edge of base.
- C. Use lengths as long as practicable.
- D. Roll entire surface of coved base with a hand roller, press toe of base firmly against wall, columns and pilasters with a straight piece of wood. Make sure that lower portion of base is in contact with floor and wall surfaces. Base joints and splices to be straight. Install after tile or other flooring is completed and wall surfaces are thoroughly dry and finished with finish materials applied.
- E. Roll entire surface of straight base with a hand roller firmly against walls, columns and pilasters. Base joints and splices to be straight. Install before carpeting or other flooring installation. Be sure application of finished material for walls are completed and dry, before base installation.
- F. Protect surfaces from adhesive spills. Clean immediately if any with dry cleaning solution.
- G. Scribe base accurately to door frames and abutting items.

3.05 APPLICATION OF EDGE STRIPS

- A. Install edge strips with epoxy adhesive whenever exposed tile occurs in accord with manufacturer's published recommendations.
- B. Where tile stops at doorways, set edge strips directly under door.

3.06 CLEANING

- A. Upon completion of each area, remove excess adhesive and other soiling with an accepted dry cleaning solution.
- B. Prior to final acceptance, but a minimum of five days after installation, wash resilient floors and base with cleaning solution in accord with manufacturer's published directions.
- C. Wax floors as recommended by manufacturer of flooring. Do not wax studded rubber flooring.

END OF SECTION

SECTION 01352 - LEED REQUIREMENTS

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 1 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. Section includes general requirements and procedures for compliance with certain USGBC LEED prerequisites and credits needed for Project to obtain LEED Silver certification based on LEED-NC, Version 2.2.
 - 1. Other LEED prerequisites and credits needed to obtain LEED certification depend on material selections and may not be specifically identified as LEED requirements. Compliance with requirements needed to obtain LEED prerequisites and credits may be used as one criterion to evaluate substitution requests and comparable product requests.
 - 2. Additional LEED prerequisites and credits needed to obtain the indicated LEED certification depend on Architect's design and other aspects of Project that are not part of the Work of the Contract.
 - 3. A copy of the LEED Project checklist is attached at the end of this Section for information only.
- B. Related Sections:
 - 1. Divisions 1 through 16 Sections for LEED requirements specific to the work of each of these Sections. Requirements may or may not include reference to LEED.

1.3 DEFINITIONS

- A. Chain-of-Custody Certificates: Certificates signed by manufacturers certifying that wood used to make products was obtained from forests certified by an FSC-accredited certification body to comply with FSC STD-01-001, "FSC Principles and Criteria for Forest Stewardship." Certificates shall include evidence that manufacturer is certified for chain of custody by an FSC-accredited certification body.
- B. LEED: Leadership in Energy & Environmental Design.
- C. Rapidly Renewable Materials: Materials made from plants that are typically harvested within a 10-year or shorter cycle. Rapidly renewable materials include products made from bamboo, cotton, flax, jute, straw, sunflower seed hulls, vegetable oils, or wool.
- D. Regional Materials: Materials that have been extracted, harvested, or recovered, as well as manufactured, within 500 miles (800 km) of Project site. If only a fraction of a product or material is extracted/harvested/recovered and manufactured locally, then only that percentage (by weight) shall contribute to the regional value.
- E. Recycled Content: The recycled content value of a material assembly shall be determined by weight. The recycled fraction of the assembly is then multiplied by the cost of assembly to determine the recycled content value.

1. "Post-consumer" material is defined as waste material generated by households or by commercial, industrial, and institutional facilities in their role as end users of the product, which can no longer be used for its intended purpose.
2. "Pre-consumer" material is defined as material diverted from the waste stream during the manufacturing process. Excluded is reutilization of materials such as rework, regrind, or scrap generated in a process and capable of being reclaimed within the same process that generated it.

1.4 SUBMITTALS

- A. General: Submit additional LEED submittals required by other Specification Sections.
- B. LEED submittals are in addition to other submittals. If submitted item is identical to that submitted to comply with other requirements, submit duplicate copies as a separate submittal to verify compliance with indicated LEED requirements.
- C. Project Materials Cost Data: Provide statement indicating total cost for building materials used for Project, excluding mechanical, electrical, and plumbing components, and specialty items such as elevators and equipment. Include statement indicating total cost for wood-based materials used for Project.
- D. LEED Action Plans: Provide preliminary submittals within 60 days of date established for commencement of the Work indicating how the following requirements will be met:
 1. Credit MR 2.1 and Credit MR 2.2: Waste management plan complying with Division 1 Section "Construction Waste Management."
 2. Credit MR 4.1 and Credit MR 4.2: List of proposed materials with recycled content. Indicate cost, post-consumer recycled content, and pre-consumer recycled content for each product having recycled content.
 3. Credit MR 5.1 and Credit MR 5.2: List of proposed regional materials. Identify each regional material, including its source, cost, and the fraction by weight that is considered regional.
 4. Credit MR 7: List of proposed certified wood products. Indicate each product containing certified wood, including its source and cost of certified wood products.
 5. Credit EQ 3.1: Construction indoor-air-quality management plan.
- E. LEED Progress Reports: Concurrent with each Application for Payment, submit reports comparing actual construction and purchasing activities with LEED action plans for the following:
 1. Credit MR 2.1 and Credit MR 2.2: Waste reduction progress reports complying with Division 1 Section "Construction Waste Management."
 2. Credit MR 4.1 and Credit MR 4.2: Recycled content.
 3. Credit MR 5.1 and Credit MR 5.2: Regional materials.
 4. Credit MR 7: Certified wood products.
- F. LEED Documentation Submittals:
 1. Credit EA 5: Product data and wiring diagrams for sensors and data collection system used to provide continuous metering of building energy-consumption performance over a period of time of not less than one year of postconstruction occupancy.
 2. Credit MR 2.1 and Credit MR 2.2: Comply with Division 1 Section "Construction Waste Management."
 3. Credit MR 4.1 and Credit MR 4.2: Product data and certification letter indicating percentages by weight of post-consumer and pre-consumer recycled content for products having recycled content. Include statement indicating costs for each product having recycled content.

4. Credit MR 5.1 and Credit MR 5.2: Product data for regional materials indicating location and distance from Project of material manufacturer and point of extraction, harvest, or recovery for each raw material. Include statement indicating cost for each regional material and the fraction by weight that is considered regional.
5. Credit MR 7: Product data and chain-of-custody certificates for products containing certified wood. Include statement indicating cost for each certified wood product.
6. Credit EQ 3.1:
 - a. Construction indoor-air-quality management plan.
 - b. Product data for temporary filtration media.
 - c. Product data for filtration media used during occupancy.
 - d. Construction Documentation: Six photographs at three different times during the construction period, along with a brief description of the SMACNA approach employed, documenting implementation of the indoor-air-quality management measures, such as protection of ducts and on-site stored or installed absorptive materials.
7. Credit EQ 4.1: Product data for adhesives and sealants used inside the weatherproofing system indicating VOC content of each product used. Indicate VOC content in g/L calculated according to 40 CFR 59, Subpart D (EPA Method 24).
8. Credit EQ 4.2: Product data for paints and coatings used inside the weatherproofing system indicating VOC content of each product used. Indicate VOC content in g/L calculated according to 40 CFR 59, Subpart D (EPA Method 24).
9. Credit EQ 4.4: Product data for products containing composite wood or agrifiber products or wood glues indicating that they do not contain urea-formaldehyde resin.

1.5 QUALITY ASSURANCE

- A. LEED Coordinator: Engage an experienced LEED-Accredited Professional to coordinate LEED requirements. LEED coordinator may also serve as waste management coordinator.

PART 2 - PRODUCTS

2.1 RECYCLED CONTENT OF MATERIALS

- A. Credit MR 4.1 and Credit MR 4.2: Provide building materials with recycled content such that post-consumer recycled content plus one-half of pre-consumer recycled content constitutes a minimum of 20 percent of cost of materials used for Project.
 1. Cost of post-consumer recycled content of an item shall be determined by dividing weight of post-consumer recycled content in the item by total weight of the item and multiplying by cost of the item.
 2. Cost of post-consumer recycled content plus one-half of pre-consumer recycled content of an item shall be determined by dividing weight of post-consumer recycled content plus one-half of pre-consumer recycled content in the item by total weight of the item and multiplying by cost of the item.
 3. Do not include mechanical and electrical components in the calculation.

2.2 REGIONAL MATERIALS

- A. Credit MR 5.1 and Credit MR 5.2: Provide 20 percent of building materials (by cost) that are regional materials.

2.3 CERTIFIED WOOD

- A. Credit MR 7: Provide a minimum of 50 percent (by cost) of wood-based materials that are produced from wood obtained from forests certified by an FSC-accredited certification body to comply with FSC STD-01-001, "FSC Principles and Criteria for Forest Stewardship."
1. Wood-based materials include, but are not limited to, the following materials when made from wood, engineered wood products, or wood-based panel products:
 - a. Rough carpentry.
 - b. Miscellaneous carpentry.
 - c. Heavy timber construction.
 - d. Wood decking.
 - e. Metal-plate-connected wood trusses.
 - f. Structural glued-laminated timber.
 - g. Finish carpentry.
 - h. Architectural woodwork.
 - i. Wood paneling.
 - j. Wood veneer wall covering.
 - k. Wood flooring.
 - l. Wood lockers.
 - m. Wood cabinets.
 - n. Furniture.

2.4 LOW-EMITTING MATERIALS

- A. Credit EQ 4.1: For field applications that are inside the weatherproofing system, use adhesives and sealants that comply with the following limits for VOC content when calculated according to 40 CFR 59, Subpart D (EPA Method 24):
1. Wood Glues: 30 g/L.
 2. Metal to Metal Adhesives: 30 g/L.
 3. Adhesives for Porous Materials (Except Wood): 50 g/L.
 4. Subfloor Adhesives: 50 g/L.
 5. Plastic Foam Adhesives: 50 g/L.
 6. Carpet Adhesives: 50 g/L.
 7. Carpet Pad Adhesives: 50 g/L.
 8. VCT and Asphalt Tile Adhesives: 50 g/L.
 9. Cove Base Adhesives: 50 g/L.
 10. Gypsum Board and Panel Adhesives: 50 g/L.
 11. Rubber Floor Adhesives: 60 g/L.
 12. Ceramic Tile Adhesives: 65 g/L.
 13. Multipurpose Construction Adhesives: 70 g/L.
 14. Fiberglass Adhesives: 80 g/L.
 15. Contact Adhesive: 80 g/L.
 16. Structural Glazing Adhesives: 100 g/L.
 17. Wood Flooring Adhesive: 100 g/L.
 18. Structural Wood Member Adhesive: 140 g/L.
 19. Special Purpose Contact Adhesive (contact adhesive that is used to bond melamine covered board, metal, unsupported vinyl, Teflon, ultra-high molecular weight polyethylene, rubber or wood veneer 1/16 inch or less in thickness to any surface): 250 g/L.
 20. Top and Trim Adhesive: 250 g/L.
 21. Plastic Cement Welding Compounds: 350 g/L.
 22. ABS Welding Compounds: 400 g/L.
 23. CPVC Welding Compounds: 490 g/L.

24. PVC Welding Compounds: 510 g/L.
25. Adhesive Primer for Plastic: 650 g/L.
26. Sheet Applied Rubber Lining Adhesive: 850 g/L.
27. Aerosol Adhesive, General Purpose Mist Spray: 65 percent by weight.
28. Aerosol Adhesive, General Purpose Web Spray: 55 percent by weight.
29. Special Purpose Aerosol Adhesive (All Types): 70 percent by weight.
30. Other Adhesives: 250 g/L.
31. Architectural Sealants: 250 g/L.
32. Nonmembrane Roof Sealants: 300 g/L.
33. Single-Ply Roof Membrane Sealants: 450 g/L.
34. Other Sealants: 420 g/L.
35. Sealant Primers for Nonporous Substrates: 250 g/L.
36. Sealant Primers for Porous Substrates: 775 g/L.
37. Modified Bituminous Sealant Primers: 500 g/L.
38. Other Sealant Primers: 750 g/L.

- B. Credit EQ 4.2: For field applications that are inside the weatherproofing system, use paints and coatings that comply with the following limits for VOC content when calculated according to 40 CFR 59, Subpart D (EPA Method 24):

1. Flat Paints, Coatings, and Primers: VOC not more than 50 g/L.
2. Nonflat Paints, Coatings, and Primers: VOC not more than 150 g/L.
3. Anticorrosive and Antirust Paints Applied to Ferrous Metals: VOC not more than 250 g/L.
4. Clear Wood Finishes, Varnishes: VOC not more than 350 g/L.
5. Clear Wood Finishes, Lacquers: VOC not more than 550 g/L.
6. Floor Coatings: VOC not more than 100 g/L.
7. Shellacs, Clear: VOC not more than 730 g/L.
8. Shellacs, Pigmented: VOC not more than 550 g/L.
9. Stains: VOC not more than 250 g/L.

- C. Credit EQ 4.4: Do not use composite wood or agrifiber products or adhesives that contain urea-formaldehyde resin.

PART 3 - EXECUTION

3.1 MEASUREMENT AND VERIFICATION

- A. Credit EA 5: Implement measurement and verification plan consistent with Option B: Energy Conservation Measure Isolation or Option D: Calibrated Simulation, Savings Estimation Method 2 in the EVO's "International Performance Measurement and Verification Protocol (IPMVP) Volume III: Concepts and Options for Determining Energy Savings in New Construction," and as further defined by the following:
1. **<Insert measurement and verification plan design team submitted for credit>.**
- B. If not already in place, install metering equipment to measure energy usage. Monitor, record, and trend log measurements.
- C. Evaluate energy performance and efficiency by comparing actual to predicted performance.
- D. Measurement and verification period shall cover at least one year of postconstruction occupancy.

3.2 CONSTRUCTION WASTE MANAGEMENT

- A. Credit MR 2.1 and Credit MR 2.2: Comply with Division 1 Section "Construction Waste Management."

3.3 CONSTRUCTION INDOOR-AIR-QUALITY MANAGEMENT

- A. Credit EQ 3.1: Comply with SMACNA's "SMACNA IAQ Guideline for Occupied Buildings under Construction."
1. If Owner authorizes use of permanent heating, cooling, and ventilating systems during construction period as specified in Division 1 Section "Temporary Facilities and Controls," install filter media having a MERV 8 according to ASHRAE 52.2 at each return-air inlet for the air-handling system used during construction.
 2. Replace all air filters immediately prior to occupancy.

END OF SECTION 01352
